

Fig. 1

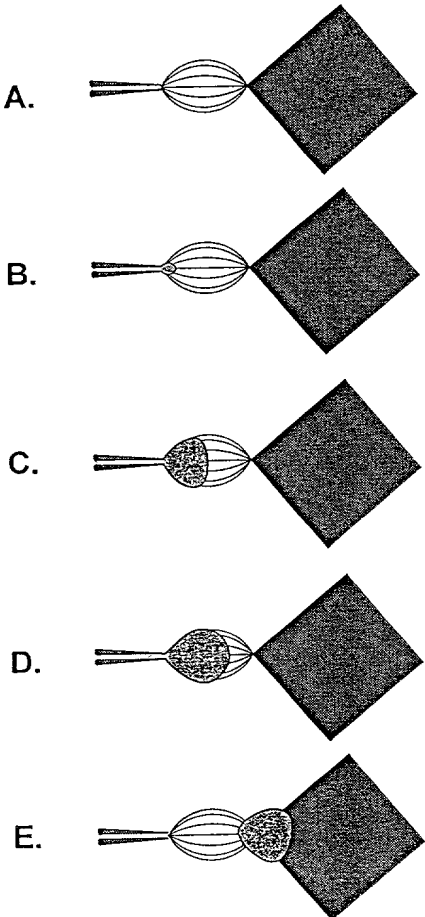
[illegible]

FIG. 2

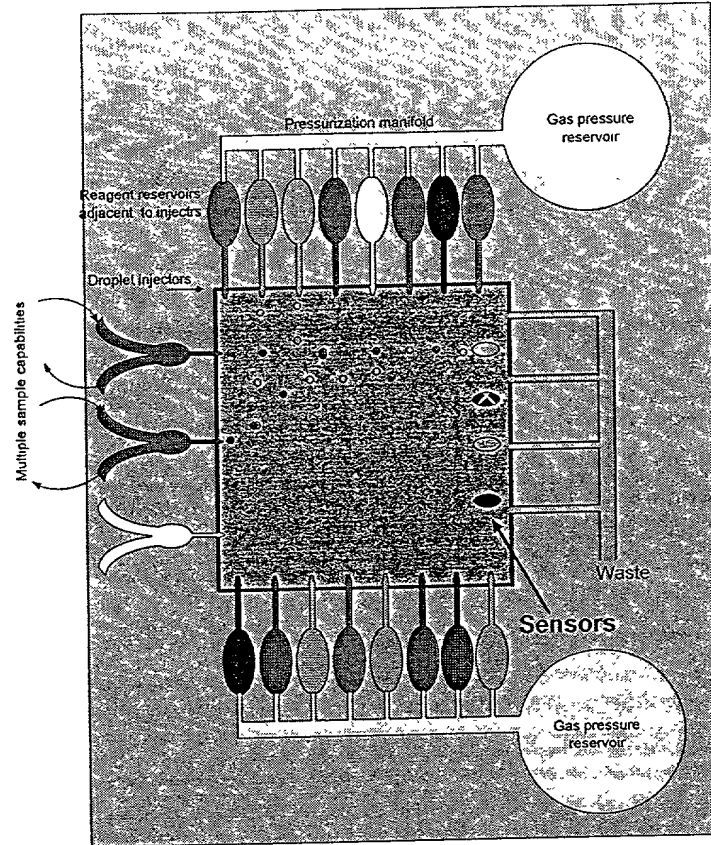
[illegible]

FIG. 3

The diagram illustrates the system architecture, divided into two main sections: the handheld interface and the cartridge package.

**Handheld Interface:**

- Color TFT Display**
- Cursor Keys**
- "Game-style" Handheld Interface and Programming Unit**

**Cartridge Package:**

- Batteries**
- System Controller**
- Display / Alarm**
- Reaction Sensor**
- Programmable Fluidic Processor**
- High Volt Driver**
- Dielectric Position Sensor**
- Display-type address logic**
- Samples**
- Reagent Reservoir**
- Waste**
- Gas Reservoir**
- BioChip**

The handheld interface is connected to the cartridge package via a **Plug-In** connection. The cartridge package contains the **Batteries**, **System Controller**, and **Display / Alarm**. The **System Controller** is connected to the **Reaction Sensor**, **Programmable Fluidic Processor**, and **Display-type address logic**. The **Display-type address logic** is connected to the **High Volt Driver** and **Dielectric Position Sensor**. The **High Volt Driver** and **Dielectric Position Sensor** are connected to the **Programmable Fluidic Processor**. The **Programmable Fluidic Processor** is connected to the **Samples**, **Reagent Reservoir**, **Waste**, and **Gas Reservoir**. The **Reaction Sensor** is connected to the **Programmable Fluidic Processor**. The **BioChip** is located within the cartridge package.

FIG. 4

F16.5

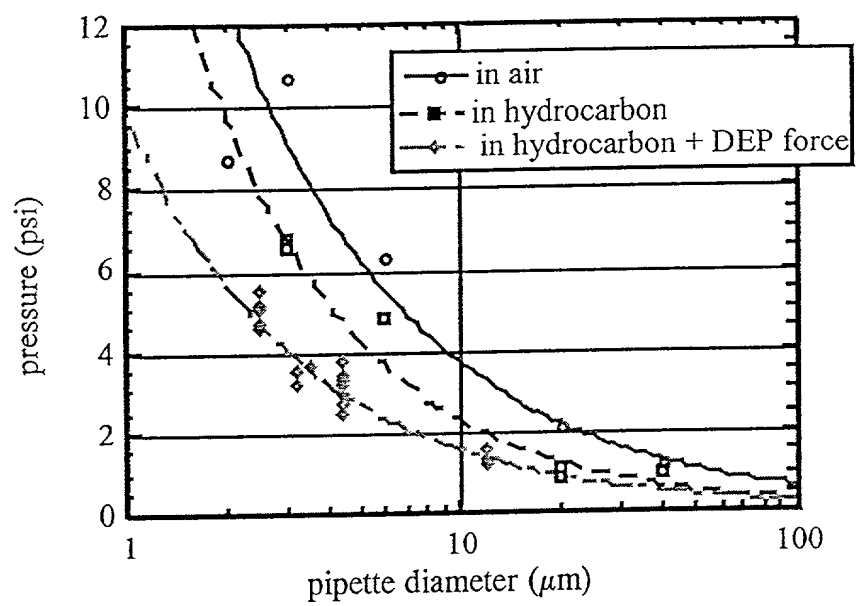
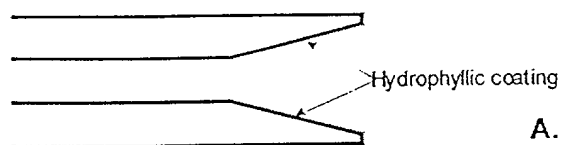
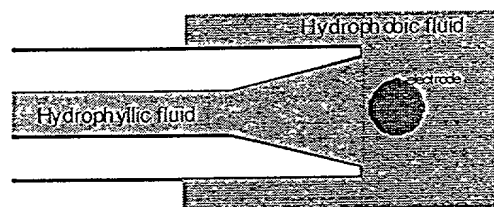


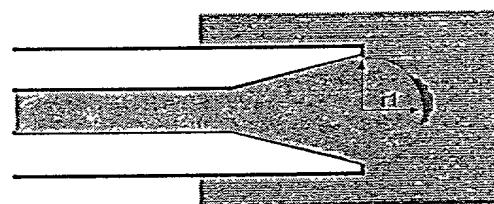
FIG. 6



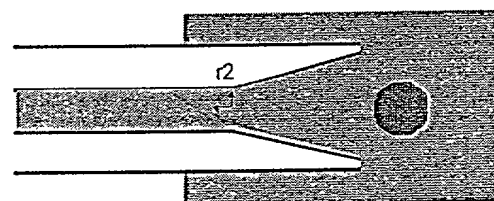
A.



B.



C.



D.

FIG. 7

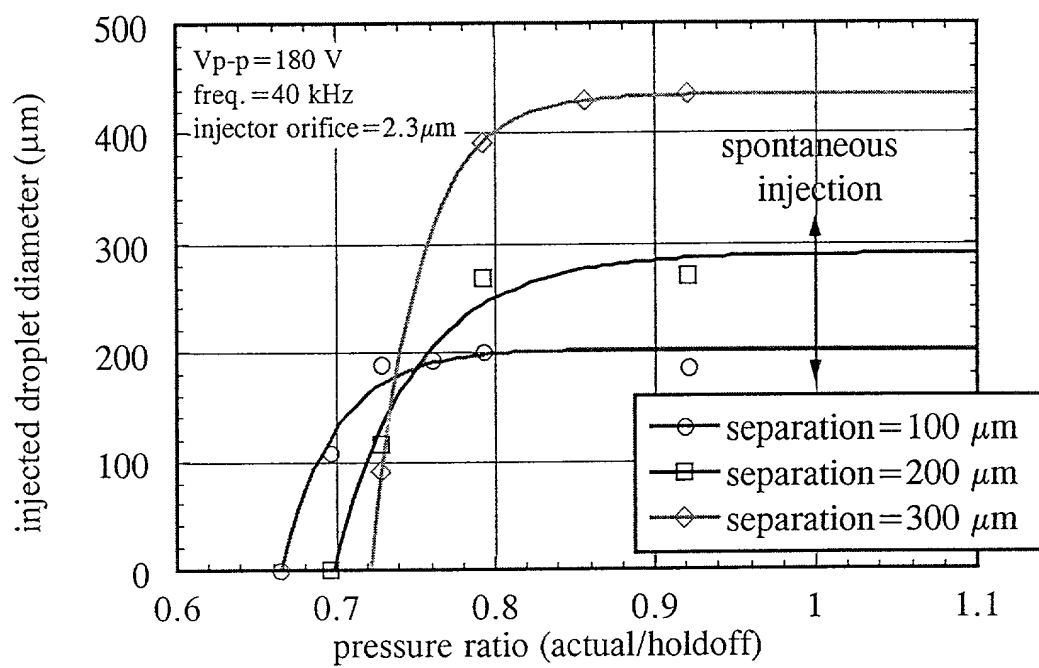


FIG. 8



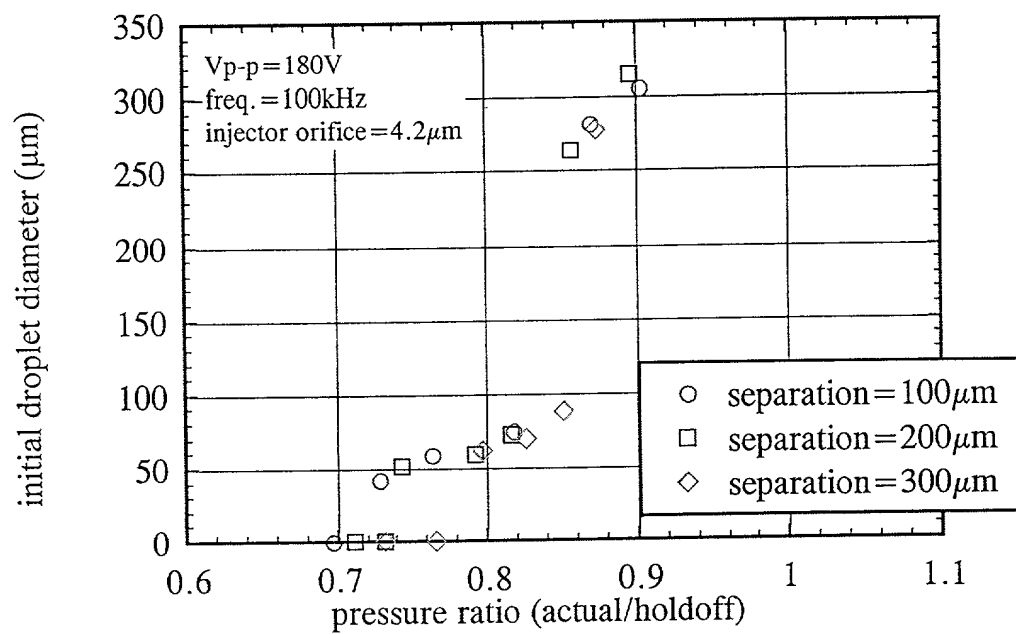


FIG. 9